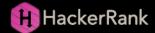
2D Array - DS



Given a 6×6 2D Array, arr:

We define an hourglass in A to be a subset of values with indices falling in this pattern in arr's graphical representation:

```
a b c
d
e f g
```

There are 16 hourglasses in arr, and an hourglass sum is the sum of an hourglass' values. Calculate the hourglass sum for every hourglass in arr, then print the maximum hourglass sum.

For example, given the 2D array:

```
-9 -9 -9 111
0 -9 0 432
-9 -9 -9 123
0 0 8 660
0 0 0 -2 0 0
0 0 1 2 4 0
```

We calculate the following 16 hourglass values:

```
-63, -34, -9, 12,
-10, 0, 28, 23,
-27, -11, -2, 10,
9, 17, 25, 18
```

Our highest hourglass value is 28 from the hourglass:

```
0 4 3
1
8 6 6
```

Note: If you have already solved the Java domain's *Java 2D Array* challenge, you may wish to skip this challenge.

Function Description

Complete the function *hourglassSum* in the editor below. It should return an integer, the maximum hourglass sum in the array.

hourglassSum has the following parameter(s):

• arr: an array of integers

Input Format

Each of the 6 lines of inputs arr[i] contains 6 space-separated integers arr[i][j].

Constraints

- $-9 \leq arr[i][j] \leq 9$
- $0 \le i, j \le 5$

Output Format

Print the largest (maximum) hourglass sum found in arr.

Sample Input

```
111000
010000
111000
002440
000200
001240
```

Sample Output

```
19
```

Explanation

arr contains the following hourglasses:

The hourglass with the maximum sum (19) is:

```
2 4 4
2
1 2 4
```